(Adopted April 8, 1994)(Amended March 17, 2000)

RULE 1402. CONTROL OF TOXIC AIR CONTAMINANTS FROM EXISTING SOURCES

(a) Purpose

The purpose of this rule is to reduce the health risk associated with emissions of toxic air contaminants from existing sources by specifying limits for maximum individual cancer risk (MICR), cancer burden, and noncancer acute and chronic hazard index (HI) applicable to total facility emissions and by requiring facilities to implement risk reduction plans to achieve specified risk limits, as required by the Hot Spots Act and this rule. The rule also specifies public notification and inventory requirements.

(b) Applicability

This rule shall apply to any facility subject to the Hot Spots Act and to any facility for which the impact of total facility emissions exceeds any significant or action risk level as indicated in one of the following:

(1) A health risk assessment required pursuant to the Hot Spots Act and approved by the District;

(2) A health risk assessment prepared by the District for the purpose of this rule for a facility or category of facilities, including but not limited to facilities for which the District has prepared an industrywide emissions inventory pursuant to the Hot Spots Act; or

(3) A health risk assessment required pursuant to subdivision (d) of this rule and approved by the District.

Except for facilities subject to the rule pursuant to paragraph (b)(2), the risk reduction requirements of this rule shall not apply to facilities which have not been notified by the District to prepare a health risk assessment pursuant to this rule or the Hot Spots Act.

(c) Definitions

(1) ACCEPTABLE STACK HEIGHT for a permit unit is defined as a stack height that does not exceed two and one half times the height of the permit unit or two and one half times the height of the building housing the permit unit, and shall not be greater than 65 meters (213 feet), unless the operator demonstrates to the satisfaction of the Executive Officer that a greater height is necessary.

(2) ACTION RISK LEVEL for purpose of this rule is a MICR of twenty-five in one million (25×10^{-6}), cancer burden of 0.5, or a total acute or chronic HI of three (3.0) for any target organ system at any receptor location.

(3) CANCER BURDEN means the estimated increase in the occurrence of cancer cases in a population subject to a MICR of greater than or equal to one in one million (1×10^{-6}) resulting from exposure to toxic air contaminants.

(4) FACILITY means any permit unit or grouping of permit units or other air contaminant-emitting activities which are located in one or more contiguous properties within the District, in actual physical contact or separately solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or persons under common control). Such above-described groupings, if remotely located and connected only by land carrying a pipeline, shall not be considered one facility.

(5) HOT SPOTS ACT means the Air Toxics "Hot Spots" Information and Assessment Act of 1987, incorporated at Part 6, Division 26 of the Health and Safety Code, and amendments to this act.

(6) INDIVIDUAL SUBSTANCE ACUTE HAZARD INDEX (HI) is the ratio of the estimated maximum one-hour, or other time period as specified by the Executive Officer, concentration of a toxic air contaminant at a receptor location to its acute reference exposure level.

(7) INDIVIDUAL SUBSTANCE CHRONIC HAZARD INDEX (HI) is the ratio of the long-term level of exposure to a toxic air contaminant for a potential maximally exposed individual to the chronic reference exposure level for the toxic air contaminant.

(8) INITIAL PLAN SUBMITTAL DATE is the date that the initial risk reduction plan is submitted to the District, but no later than 180 days following notification by the Executive Officer that a risk reduction plan is required.

(9) MAXIMUM INDIVIDUAL CANCER RISK (MICR) is the estimated probability of a potential maximally exposed individual contracting cancer as a result of exposure to toxic air contaminants over a period of 70 years for residential and 46 years for worker receptor locations. The MICR calculations shall include multi-pathway consideration if applicable.

(10) OPERATOR means the person who owns or operates a facility or part of a facility.

(11) PHASE I FACILITY is any facility that either emitted more than 25 tons per year of any criteria pollutant or was listed in a toxics emitters list, and was required to submit emissions inventory reports pursuant to the Hot Spots Act for the calendar year 1989.

(12) RECEPTOR LOCATION means:

(A) for the purpose of calculating acute HI, any location outside the boundaries of the facility at which a person could experience acute exposure; and

(B) for the purpose of calculating chronic HI, MICR, or cancer burden any location outside the boundaries of the facility at which a person could experience chronic exposure.

The Executive Officer shall consider the possibility of potential exposure at a location in determining whether the location will be considered a receptor location.

(13) RISK REDUCTION MEASURE is a control measure which will reduce or eliminate the health risk associated with emissions of toxic air contaminants, is real, permanent, quantifiable, and enforceable through District permit conditions if applicable, and meets the requirements of the Hot Spots Act. Risk reduction measures may include, but are not limited to feedstock modification; product reformulations; production system modifications; system enclosure, emissions control, capture or conversion; operational standards or practices modifications; emissions collection and exhaust; source control; or alternative technologies.

(14) SIGNIFICANT RISK LEVEL for purpose of this rule is a MICR of one hundred in one million (1.0×10^{-4}), or a total acute or chronic HI of five (5.0) for any target organ system at any receptor location.

(15) TOTAL ACUTE HAZARD INDEX (HI) is the sum of the individual substance acute HIs for all toxic air contaminants identified in the risk assessment guidelines as affecting the same target organ system.

(16) TOTAL CHRONIC HAZARD INDEX (HI) is the sum of the individual substance chronic HIs for all toxic air contaminants identified in the risk assessment guidelines as affecting the same target organ system.

(17) TOXIC AIR CONTAMINANT is an air pollutant which may cause or contribute to an increase in mortality or serious illness, or which may pose a present or potential hazard to human health.

(d) Risk Assessment Requirements

Notwithstanding the requirements of subdivision (n), within 150 days of the date of notification by the Executive Officer, an operator shall submit to the District a health risk assessment for total facility emissions. The Executive Officer may require a health risk assessment or an emissions inventory from a facility when, based upon investigation, the Executive Officer determines that emission levels from the facility could potentially cause exceedance of the action risk levels.

(e) Risk Reduction Requirements

The following requirements shall apply to the operator of any facility whose emissions cause an exceedance of any significant or action risk level as indicated in a health risk assessment approved or prepared by the District:

(1) Any operator whose facility-wide risk is greater than or equal to the action risk level shall implement the risk reduction measures specified in a risk reduction plan approved by the Executive Officer to reduce the impact of total facility emissions below the action risk level as quickly as feasible but by no later than three (3) years from the initial plan submittal date.

(2) For any operator whose facility-wide risk is less than the significant risk level, the Executive Officer may approve time extensions to comply with paragraph (e)(1) in increments of up to two (2) additional years to implement risk reduction measures and achieve required risk reductions, provided the operator demonstrates one or more of the following criteria:

(A) there is no known technology or risk reduction measure that is commercially available or can achieve required risk reductions within the required time period; or

(B) the only known technology or risk reduction measure that can be implemented within the facility that will meet the facility-wide risk reduction requirements within the required time period will result in a cost impact that exceeds both of the following:

(i) $4,000,000 per cancer case avoided; and

(ii) $18,000 per ton of pollutant reduced if the TAC is also a criteria pollutant.

(C) Any extension beyond the first two year extension for each facility must be approved by the Governing Board in a public hearing before going into effect.

(3) The operator shall implement risk reduction measures in an approved plan by the dates specified in the plan for each risk reduction measure.

(f) Submittal of Risk Reduction Plans

(1) The Executive Officer will publish procedures for preparing risk reduction plans under this rule. The procedures will include self-conducted audits and checklists which may be used by certain categories of facilities in lieu of preparing a risk reduction plan.

(2) An operator shall submit a risk reduction plan to the Executive Officer as specified in Table A.

Table A

Risk Reduction Plan Submittal Dates

Applicability	Health Risk Assessment (HRA) Approval Date	Plan Submittal Date
Any Facility ≥ Action Risk Level	Before March 17, 2000	180 Days After March 17, 2000
	On and After March 17, 2000	180 Days After HRA Approval Date
Notification by Executive Officer	Not Applicable	180 Days from date of notification from Executive Officer

(3) The operator shall submit to the Executive Officer for approval a risk reduction plan which includes at a minimum all of the following:

(A) The name, address, SCAQMD identification number and SIC code of the facility;

(B) A facility risk characterization which includes an updated air toxics emission inventory and health risk assessment, if the risk due to total facility emissions has increased above or decreased below the levels indicated in the previously approved health risk assessment;

(C) Identification of each source from which risk needs to be reduced in order to achieve a risk below the action risk level.

(D) For each source identified in subparagraph (f)(3)(C), an evaluation of the risk reduction measures available to the operator, including emission and risk reduction potential, estimated costs, and time necessary for implementation;

(E) Specification of the risk reduction measures that shall be implemented by the operator to comply with the requirements of subdivision (e) to achieve the action risk level or the lowest achievable level;

(F) A schedule for implementing the specified risk reduction measures as quickly as feasible. The schedule shall include the submittal of all necessary applications for permits to construct or modify within 180 days of approval of the plan, or in accordance with another schedule subject to approval of the Executive Officer, and specify the dates for other increments of progress associated with implementation of the risk reduction measures;

(G) If requesting a time extension, information required to demonstrate that the request meets the required criteria specified under paragraph (e)(2) and the length of time up to two years requested;

(H) An estimation of the residual health risk after implementation of the specified risk reduction measures;

(I) Proof of certification of the risk reduction plan as meeting all requirements by an individual who is officially responsible for the processes and operations of the facility.

(g) Approval of Risk Reduction Plans

(1) The Executive Officer shall approve or reject the plan within three (3) months of submittal based on the complete information contained in paragraph (f)(3). The operator may appeal the rejection of a plan or the failure of the Executive Officer to act on a plan submittal to the Hearing Board under Rule 216 - Appeals. If the Hearing Board denies the appeal, plans shall be revised and resubmitted within 90 days after the decision. The revised plan shall correct all deficiencies identified by the Executive Officer. The approved plan shall be subject to Rule 221 - Plans.

(2) If the risk reduction plan contains a facility risk characterization demonstrating to the satisfaction of the Executive Officer that the facility does not exceed the action risk level, the plan may be approved without the inclusion of the plan components specified in subparagraphs (f)(3)(C) through (H).

(3) Measures to achieve risk reductions required by the approved plan shall be incorporated by the Executive Officer through enforceable permit conditions or compliance plans.

(h) Progress Reports

The operator shall submit to the Executive Officer for review annual progress report(s), starting no later than 12 months after approval of the plan pursuant to subdivision (g), on the emissions and risk reduction achieved by the plan which include at a minimum all of the following:

(1) The increments of progress achieved in implementing the risk reduction measures specified in the plan;

(2) A schedule indicating dates for future increments of progress;

(3) Identification of any increments of progress that have been or will be achieved later than specified in the plan and the reason for achieving the increments late;

(4) A description of any increases or decreases in emissions of toxic air contaminants that have occurred at the facility, including a description of any associated permits that were subject to Rule 1401, since approval of the plan.

(i) Updating and Modification of Risk Reduction Plans

(1) If information becomes known to the Executive Officer after the last submitted plan that would substantially impact risks to exposed persons, implementation, or effectiveness of the risk reduction plan, the Executive Officer may require the plan to be updated and resubmitted.

(2) Prior to a change in the risk reduction measures or schedule specified in the currently approved plan, the operator shall submit to the Executive Officer for approval an application for plan modification. The application shall include a demonstration that the change in the risk reduction measures is necessary and will result in compliance with this rule to achieve the risk level as specified in the approved plan. Any request for a time extension shall be made at least 180 days before the end of the applicable deadline to achieve the required facility-wide risk level that is specified in the approved risk reduction plan.

(j) Risk Assessment Procedures

(1) The Executive Officer shall periodically publish or designate procedures for determining health risks under this rule. To the extent possible, the procedures shall be consistent with the policies and procedures of the Office of Environmental Health Hazard Assessment (OEHHA). Such procedures shall specify:

(A) Acute and chronic reference exposure levels and upper bound estimates of carcinogenic potency that shall be used in evaluating risks;

(B) Compounds that must be subject to a multiple pathway risk assessment. A compound is subject to multiple pathway analysis if the Executive Officer determines that it may reasonably be expected to cause health risk through ingestion exposure, if it is expected to deposit and persist in the environment after emission, and if a quantitative oral cancer potency estimate or reference exposure level has been derived for the compound;

(C) Health protective assumptions that shall be used in evaluating exposure to compounds from inhalation and other routes of exposure. This will include an assumption of a 70 year period of operation for the sources of toxic air contaminants;

(D) Risk for the potential maximally exposed individual shall be based upon continuous exposure for 70 years in residential areas and health protective estimates of exposure duration in nonresidential areas;

(E) Estimates of pollutant dispersion and risk from a source shall not be based upon stack height in excess of acceptable stack height as defined in (c)(1).

(2) Within 120 days of publication of risk assessment guidelines required to be published by the OEHHA pursuant to the Air Toxics "Hot Spots" Information and Assessment Act of 1987, the Executive Officer shall report to the District Governing Board if there are any material differences between the OEHHA guidelines and the criteria specified in this rule and recommend for Board approval whether to proceed with amendments to this rule in order to make the rule consistent with the OEHHA guidelines before their designation as the risk assessment guidelines under this rule.

(3) Promptly after OEHHA finalizes the identification of a new TAC or revises a risk value for an existing TAC, staff will provide notice to the Governing

Board and affected industries. Use of any new TAC or a more stringent risk value in health risk assessments for this rule shall be 12 months after the Governing Board receives and files the report containing such notification, unless the Governing Board approves another implementation schedule through an official Board action.

(4) Also, within 150 days of new chemicals being identified or changes in risk values being finalized by OEHHA, staff will report to the District's Governing Board regarding preliminary estimates of Rule 1402 program impacts that are associated with the new values.

(5) The Executive Officer will publish procedures for determining the emissions estimates to be used in risk assessments in cases in which a compound has not been detected in analyses which have been conducted according to District-approved methods, including procedures for excluding such compounds from risk assessments. The procedures shall provide methods for estimating the most likely emission levels of non-detected compounds based on consideration of the likelihood of presence and the method detection limits of compounds.

(k) Alternate Hazard Index Levels

An alternate hazard index level may be used as the action risk level for a particular total acute or chronic HI if the Executive Officer, in consultation with the Office of Environmental Health Hazard Assessment, determines that such alternate hazard index level is protective against adverse health effects. The alternate HI level shall not in any case exceed 10. The facility operator shall attain the alternate HI level for the action risk level.

(l) Compliance with this rule does not authorize the emission of a toxic air contaminant in violation of any federal, state, local or District law or regulation or exempt the operator from any law or regulation.

(m) Risk reduction measures implemented in order to comply with other regulatory requirements are acceptable risk reduction measures for the purposes of this rule, provided they are consistent with the requirements of this rule.

(n) Emissions Inventory Requirements

(1) These emission inventory requirements are applicable to the operator of any facility that has not yet submitted a total facility toxic emissions inventory under the Hot Spots Program, where:

(A) the facility emits one or more toxic air contaminants on Table I and its annual emissions exceed one or more of the threshold(s) identified in Table I; or

(B) the primary business operation of the facility is listed in Table II and its annual emissions exceed one or more of the threshold(s) identified in Table II.

(2) The operator of any facility subject to subparagraph (n)(1)(A) shall submit an emissions inventory within 60 days of notification from the Executive Officer.

(3) The operator of any facility subject to subparagraph (n)(1)(B) shall submit an inventory within 60 days of notification from the Executive Officer, unless the AQMD Governing Board adopts a source-specific rule prior to three years after March 17, 2000 that specifically exempts the industry, of which the facility is a member, from the inventory provisions of this rule.

(4) The operator of any facility that is required to submit an emissions inventory pursuant to subparagraph (n)(1)(A) shall submit an inventory that includes the toxic air contaminant(s) identified in Table I applicable to the facility. The operator of any facility that is required to submit an emissions inventory pursuant to subparagraph (n)(1)(B) shall submit an inventory that includes: (1) the toxic air contaminant(s) listed in Table II within the industry category that is applicable to the facility; and (2) the toxic air contaminants listed in Table I applicable to the facility, if applicable. The emissions inventory shall be prepared consistent with the emissions inventory methodology specified by "ARB's Emissions Inventory Criteria and Guidelines" (July 1997) and/or any subset of these Guidelines as specified by the Executive Officer.

(o) Phase I Facility Health Risk Assessment Revision Requirements

(1) Any operator of a Phase I facility that was required to submit a Hot Spots health risk assessment and has not received District approval on the health risk assessment, due to a request by the operator to update the inventory, shall submit to the District by July 1, 2000 or earlier, as requested by the

Executive Officer, a revised total facility inventory for the year 1995 or later which meets the requirements of the Hot Spots Act.

(2) Phase I facilities requested to provide a revised facility inventory pursuant to paragraph (o)(1), that fail to do so, shall be subject to public notification requirements on the most recent inventory data and OEHHA reviewed risk assessment that is subject to District approval that the facility submitted to the District pursuant to the Hot Spots Act.

(p) Public Notification Requirements

(1) The operator of any facility for which total facility risk, as determined through a District approved HRA or progress report, exceeds the action risk level shall provide the following public notification 12 months after the Executive Officer approves the risk reduction plan and every 12 months thereafter, until the total facility risk is below the action risk level:

(A) written public notification to report the progress of risk reductions pursuant to the most recent Board approved "Public Notification Procedures for Phase I and II Facilities Under the Air Toxics Hot Spots Information and Assessment Act" Section III.C.2. Public Notice Materials, which requires notice materials written in both English and Spanish, and additional languages as deemed appropriate by the Executive Officer; Section III.C.3. Area of Distribution (Area of Impact); Section III.C.4. Method of Distribution; and Section III.C.5. Verification of Distribution.; and

(B) public meetings if the total facility risk, as determined through a District approved HRA or the progress report, exceeds a MICR of one hundred in one million (100×10^{-6}), pursuant to the "Public Notification Procedures for Phase I and II Facilities Under the Air Toxics Hot Spots Information and Assessment Act" Section III.D. Public Meetings.

(2) Any operator with a facility-wide risk that exceeds an MICR of 10 in one million or a Hazard Index of 1.0 (0.5 for lead) as determined through a District approved HRA, shall notice the public in accordance with California Health and Safety Code Section 44362 and the most recently District approved "Public Notification Procedures for Phase I and II Facilities Under the Air Toxics Hot Spots Information and Assessment Act".

TABLE I
EMISSIONS REPORTING THRESHOLDS FOR SPECIFIC TACs

TAC	THRESHOLD
1,3 Butadiene	5 lb/yr
Benzene	25 lb/yr
Cadmium	0.2 lb/yr
Formaldehyde	150 lb/yr
Hexavalent Chromium	0.005 lb/yr
Methylene Chloride	825 lb/yr
Nickel	3.3 lb/yr
Perchloroethylene	140 lb/yr

TABLE II
EMISSIONS REPORTING THRESHOLDS FOR SPECIFIC INDUSTRIES

INDUSTRY	TAC	THRESHOLD
Biomedical Sterilizing Operations	Ethylene Oxide	10 lb/yr
Dry Cleaning	Perchloroethylene	140 lb/yr
	Methylene Chloride	825 lb/yr
Gasoline Stations	Benzene in Gasoline	25 lb/yr
Metal Finishing	Hexavalent Chromium	0.005 lb/yr
	Cadmium	0.2 lb/yr
	Nickel	3.3 lb/yr
	Copper	500 lb/yr
Motion Picture Film Processing	Perchloroethylene	140 lb/yr
Rubber	Chlorinated Dibenzofurans, Benzene, Xylenes, Toluene, Phenol, and Methylene Chloride	1,000 lb of rubber product cured/ processed per year
Wood Stripping/Refinishing,	Methylene Chloride	825 lb/yr
	DEHP	350 lb/yr
	Glycol ethers and their acetates, Ethylene Glycol (Mono)Methyl Ether, and Ethylene Glycol (Mono)Ethyl Ether Acetate	500 lb/yr
	Ethylene Glycol (Mono)Butyl Ether and Ethylene Glycol (Mono)Ethyl Ether	2,000 lb/yr
	Ethylene Glycol (Mono)Methyl Ether Acetate and Ethylene Glycol (Mono)Methyl Ether	15,000 lb/yr